



Fayette
COUNTY

"WHERE QUALITY
IS A LIFESTYLE"

PURCHASING DEPARTMENT
140 STONEWALL AVENUE WEST, STE 204
FAYETTEVILLE, GEORGIA 30214
PHONE: 770-305-5420
www.fayettecountyga.gov

August 1, 2014

Subject: Invitation to Bid for #910 Sports Lighting – FY 2015

Gentlemen/Ladies:

Fayette County, Georgia is seeking bids from qualified contractors for the design and installation of new field sports lighting for McCurry Park, in accordance with the information and specifications contained herein. Descriptive literature and all other required information shall be included with your bid. Any exceptions to the specifications shall be listed in the space provided.

A pre-bid conference will be held at 10:00a.m., Thursday, August 14, 2014 at Fayette County McCurry Park, North Soccer Field #1 Pavilion, 150 McDonough Road in Fayetteville, GA. All companies and interested parties are invited and strongly urged to attend. This will be the opportunity to take measurements, pictures, voice all questions, concerns and comments about this Invitation for Bids and have them addressed.

All questions and inquiries concerning this invitation for bids or the specifications shall be addressed to Trina Barwicks, Contract Administrator of Purchasing, 140 Stonewall Avenue West, Suite 204, Fayetteville, Georgia 30214 from 8:00 a.m. to 5:00 p.m. The telephone number is (770) 305-5420 or email address tbarwicks@fayettecountyga.gov. Any deviations from this procedure for questions or information pertaining to this invitation for bids may result in your bid being rejected.

Your bid should be on the attached pricing sheet. All prices shall be F.O.B. Destination, Fayette County. Be sure to include the **bid number** and **reference** along with your company's name and address on the **sealed** envelope in which the bid is returned.

BID MUST BE SUBMITTED TO:
FAYETTE COUNTY PURCHASING DEPARTMENT
140 STONEWALL AVENUE WEST - SUITE 204
FAYETTEVILLE, GEORGIA 30214
BID #910
REFERENCE: SPORTS LIGHTING – FY 2015

BID #910

August 1, 2014

Bids will be received at the above address until 3:00 p.m., Wednesday, August 27, 2014 in the Purchasing Department, Suite 204. Bids will be opened at approximately 3:00 p.m. August 27, 2014. Bids must be signed to be considered. Late bids will not be considered. Faxed bids will not be considered.

If this invitation for bids is downloaded from our web site, it is the responsibility of the individual or company that downloads this invitation for bids to continue to check the Fayette County web site for any addenda that might come out for this invitation for bids and is posted on the Fayette County web site. Fayette County shall not be responsible for any information that any individual or company fails to get in an addendum that is posted on the Fayette County web site but is not downloaded. However, if the Fayette County Purchasing Department mails the invitation for bids to a company or individual, we will keep a record of who we mailed that invitation for bids to and all addenda for that invitation for bids will also be mailed to those companies or individuals.

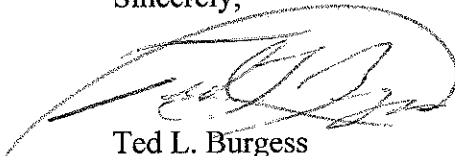
Bids will be posted on the Fayette County web site within 3 business days after the bid opening.

There is no set time for an award to be made. If an award is not made within 45 days of the bid opening, an update will be posted on the Fayette County website.

If the county awards this bid, once everything has been received by that company and the award has been completed, that information will also be posted on the Fayette County website. Please keep this procedure in mind.

The County reserves the right to reject or accept any or all bids and to waive technicalities, informalities, and minor irregularities in bids received.

Sincerely,



Ted L. Burgess
Director of Purchasing

TLB/tcb

GENERAL TERMS AND CONDITIONS

1. **Definitions:** The term “contractor” as used herein and elsewhere in these specifications shall be used synonymously with the term “successful bidder.” The term “county” shall mean Fayette County, Georgia.
2. **Bid is Offer to Contract:** Each bid constitutes an offer to become legally bound to a contract with the county, incorporating the invitation to bid and the bidder’s bid. The binding offer includes compliance with all terms, conditions, special conditions, specifications, and requirements stated in the invitation to bid, except to the extent that a bidder takes written exception to such provisions. All such terms, conditions, special conditions, specifications, and requirements will form the basis of the contract. The bidder should take care to answer all questions and provide all requested information, and to note any exceptions in the bid submission. Failure to observe any of the instructions or conditions in this invitation to bid may result in rejection of the bid.
3. **Binding Offer:** Each bid shall constitute a firm offer that is binding for ninety (90) days from the date of the bid opening, unless the bidder takes exception to this provision in writing.
4. **Bidder’s Questions:** The Fayette County Purchasing Department must receive questions about this invitation to bid in writing at least 72 hours before the scheduled bid opening, excluding Saturdays, Sundays, and holidays. The county will post answers to questions and/or other information concerning the invitation to bid in the form of an addendum on the county’s website at www.fayettecountyga.gov. It is the responsibility of the prospective bidder to check the website for any addenda issued for this invitation to bid.
5. **References:** Include with your bid a list of three (3) jobs that your company has done that are of the same or similar nature to the work described in this invitation to bid, on the form provided. Include all information as requested on the form.
6. **Bid Submission:** Submit your bid, along with any addenda issued by the county, in a sealed opaque envelope with the following information written on the outside of the envelope:
 - a. The bidder’s company name,
 - b. The bid number, which can be found in the cover letter to the invitation to bid document or on the web site, and
 - c. The “reference” which identifies the bid, which can be found in the cover letter or the web site.

Mail or deliver one (1) unbound original bid (paperclip or binder clip acceptable, no staples), signed in ink by a company official authorized to make a legal and binding offer, to:

Fayette County Government
Purchasing Department
140 Stonewall Avenue West, Suite 204
Fayetteville, GA 30214

Attention: Contracts Administrator

You may submit bids in person, by U.S. mail, or by a commercial carrier. Do not submit bids by facsimile, e-mail, or other electronic means. Once submitted, all bids become the property of Fayette County.

7. **Bid Preparation Costs:** The bidder shall bear all costs associated with preparing the bid.
8. **Late Bids:** Bids not received by the time and date of the scheduled bid opening will not be considered, unless the delay is a result of action or inaction by the county.
9. **Alternate Bids:** Do not submit alternate bids or options, unless requested or authorized by the county in the Invitation to Bid. If a responder submits more than one bid without being requested or authorized to do so, the county may disqualify the bids from that responder, at the county's option.
10. **Bid Corrections or Withdrawals:** The bidder may correct a mistake, or withdraw a bid, before the bid opening by sending written notification to the Director of Purchasing. Bids may be withdrawn after the bid opening only with written authorization from the Director of Purchasing.
11. **Defects or Irregularities in Bids:** The county reserves the right to waive any defect or irregularity in any bid received. In case of an error in extension of prices or totals in the bid, the unit prices shall govern.
12. **Prices Held Firm:** Prices quoted shall be firm for the period of the contract, unless otherwise specified in the bid. All prices for commodities, supplies, equipment, or other products shall be quoted FOB Destination, Fayette County or job site.
13. **Brand Name:** If items in this invitation for bid have been identified, described or referenced by a brand name or trade name description, such identification is intended to be descriptive, but not restrictive and is to indicate the quality and characteristics of products that may be offered. Alternative products may be considered for award if clearly identified in the bid. Items offered must meet required specifications and must be of a quality which will adequately serve the use and purpose for which intended.
14. **Bidder Substitutions:** Bidders offering substitutions or deviations from specifications stated in the invitation to bid, shall list such substitutions or deviations on the "Exceptions to Specifications" sheet provided, or on a separate sheet to be submitted with the bid. The absence of such list shall indicate that the bidder has taken no exception to the specifications. The evaluation of bids and the determination as to equality and acceptability of products or services offered shall be the responsibility of the county.
15. **Samples:** When the county requires samples as part of the bid and vendor selection process, bidders must provide requested samples within the time allotted, and at no cost to the county unless otherwise specified. Any goods provided under contract shall conform to the sample submitted. The county will return samples only at the bidder's request, and at the bidder's expense, if they are not destroyed by testing.
16. **Non-Collusion:** By responding to this invitation to bid, the bidder represents that the bid is not made in connection with any competing bidder, supplier, or service provider submitting a separate response to this invitation to bid, and is in all respects fair and without collusion or fraud.
17. **Arrears:** Bids will not be accepted from any person, firm, or corporation who is in arrears in any debt or obligation to Fayette County.

18. **Bid Evaluation:** Award will be made to the lowest responsive, responsible bidder, taking into consideration payment terms, vendor qualifications and experience, quality, references, any exceptions listed, and/or other factors deemed relevant in making the award. The county may make such investigation as it deems necessary to determine the ability of the bidder to perform, and the bidder shall furnish to the county all information and data for this purpose as the county may request. The county reserves the right to reject any bid item, any bid, or all bids, and to re-advertise for bids.
19. **Partial Award:** The County reserves the right to make award by item, by group of items, by any combination of items, or by lump sum award. The award will be made in the best interest of the county. Bidders may restrict their bids to consideration of a lump sum award or other restriction only by so indicating on the pricing sheet or the "Exceptions to Specifications" sheet included in the invitation to bid. Bidders who do not restrict consideration of their bids in this manner shall be expected to accept any portion of the bid awarded. The county reserves the right to award multiple contracts for the products or services sought by this invitation to bid.
20. **Discounts:** Cash discounts offered will be a consideration in awarding the bid, but only if they give the county at least 15 days from receipt of invoice to pay. For taking discounts, time will be computed from the date of acceptance at destination or the date a correct invoice is received, whichever is the later date. Payment is deemed made, for the purpose of earning the discount, on the date of the check. For payment of full invoice price, minimum terms of net 30 are preferred.
21. **Trade Secrets - Confidentiality:** A bid is a public record, except for material which qualifies as trade secret information. To keep this information confidential, a bidder must submit trade secret materials in a separate, sealed envelope marked "Trade Secret – Confidential and Proprietary Information – Do Not Disclose Except for the Purpose of Evaluating this Bid." Each page in the envelope should be stamped or otherwise marked designating it as trade secrets or confidential. Do not attempt to designate the entire bid as a trade secret, and do not attempt to designate pricing information as a trade secret, as doing so may result in your bid being disqualified. See O.C.G.A. 50-18-72 as amended by 2012 H.B. 397 for specific Georgia law on this subject.
22. **Trade Secrets – Internal Use:** In submitting a bid, the bidder agrees that the county may reveal any trade secret materials contained in the bid to all county staff and officials involved in the selection process, and to any outside consultant or other third parties who may assist in the selection process. The bidder agrees to hold harmless the county and each of its officers, employees, and agents from all costs, damages, and expenses incurred in connection with refusing to disclose any material which the bidder has designated as a trade secret.
23. **Contract Execution & Notice to Proceed:** After the Board of Commissioners makes an award, all required documents are received by the county, and the contract is fully executed with signature of both parties, the county will issue a written Notice to Proceed. The county shall not be liable for payment of any work done or any costs incurred by any bidder prior to the county issuing the Notice to Proceed.
24. **Insurance:** The successful bidder shall, without expense to the county, carry the following insurance, to be in effect throughout the term of the contract, in at least the amounts and limits as follows:
 - a. **General Liability Insurance:** \$1,000,000 combined single limit per occurrence, including bodily and personal injury, destruction of property, and contractual liability.

- b. **Automobile Liability Insurance:** \$1,000,000 combined single limit each occurrence, including bodily injury and property damage liability.
- c. **Worker's Compensation & Employer's Liability Insurance:** Workers Compensation as required by Georgia statute.

Before a contract with the successful bidder is executed, the successful bidder shall provide Certificates of Insurance for all required coverage. The certificate shall list an additional insured as follows:

Fayette County Board of Commissioners
140 Stonewall Avenue West
Fayetteville, GA 30214

- 25. **Unauthorized Performance:** The county will not compensate the contractor for work performed unless the work is authorized under the contract, as initially executed or as amended.
- 26. **Assignment of Contract:** Assignment of any contract resulting from this invitation to bid will not be authorized.
- 27. **Indemnification:** The successful bidder shall defend and indemnify the county and all its officers, agents and employees against any suits, actions, or other claims brought on account of any injuries or damages to any person, persons, or property resulting from any negligent act or fault of the successful bidder, or of any agent, employee, subcontractor or supplier in the performance of any contract which may be awarded. The successful bidder shall pay any judgment with cost which may be obtained against the county growing out of such injury or damages.
- 28. **Patent Indemnity:** The contractor guarantees to save the county, its agents, officers, or employees harmless from liability of any nature or kind for use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used in the performance of the contract, for which the contractor is not the patentee, assignee or licensee.
- 29. **Severability:** The invalidity of one or more of the phrases, sentences, clauses or sections contained in the contract shall not affect the validity of the remaining portion of the contract. If any provision of the contract is held to be unenforceable, then both parties shall be relieved of all obligations arising under such provision to the extent that the provision is unenforceable. In such case, the contract shall be deemed amended to the extent necessary to make it enforceable while preserving its intent.
- 30. **Delivery Failures:** If the contractor fails to deliver contracted goods or services within the time specified in the contract, or fails to replace rejected items in a timely manner, the county shall have authority to make open-market purchases of comparable goods or services. The county shall have the right to invoice the contractor for any excess expenses incurred, or deduct such amount from monies owed the contractor. Such purchases shall be deducted from contracted quantities.
- 31. **Substitution of Contracted Items:** The contractor shall be obligated to deliver products awarded in this contract in accordance with terms and conditions specified herein. If a contractor is unable to deliver the products under the contract, it shall be the contractor's responsibility to obtain prior approval of the ordering agency to deliver an acceptable substitute at the same price quoted in the contractor's original bid. In the event any

contractor consistently needs to substitute or refuses to substitute products, the County reserves the right to terminate the contract or invoke the "Delivery Failures" clause stated herein.

32. **Inspection and Acceptance of Deliveries:** The county reserves the right to inspect all goods and products delivered. The county will decide whether to accept or reject items delivered. The inspection shall be conclusive except with respect to latent defects, fraud, or such gross mistakes as shall amount to fraud. Final inspection resulting in acceptance or rejection of the products will be made as soon as practicable, but failure to inspect shall not be construed as a waiver by the county to claim reimbursement or damages for such products which are later found to be in non-conformance with specifications. Should public necessity demand it, the county reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Director.
33. **Bid Bond:** You must include a bid bond equal to five percent (5%) of the total amount bid. Bid bonds shall be provided by a surety which appears on Georgia's list of approved sureties administered by the State Insurance Commissioner, or the U.S. Treasury's list of approved bond sureties (Circular 570).
34. **Performance and Payment Bonds:** Bids shall include a letter stating that the bidder can and will provide performance and payment bonds, each equal to 100 percent of the contract value, upon being awarded the contract. Prior to execution of a contract, the successful bidder shall submit the bonds to the county, provided by a surety which appears on Georgia's list of approved sureties administered by the State Insurance Commissioner, or the U.S. Treasury's list of approved bond sureties (Circular 570).

Fayette County, Georgia
Checklist of Required Documents

(Please Return This Checklist with Your Bid)

BID #910 SPORTS LIGHTING – FY 2015

Be sure to include with your bid, in the order listed:

- Company information – on the form provided _____
- Pricing sheets _____
- List of exceptions, if any – on the form provided _____
- **Work Authorization Documents:** Contractor Affidavit _____
- Bid bond _____
- Letter assuring
 - Performance bond _____
 - Payment bond _____
- Insurance Certificate _____
- References – on form provided _____

COMPANY NAME: _____

Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of Fayette County, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

BID #910 SPORTS LIGHTING – FY 2015

Name of Project

FAYETTE COUNTY GEORGIA

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, _____, 2014 in (city) _____, (state) _____

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE _____ DAY OF _____, 201 _____.

NOTARY PUBLIC

My Commission Expires:

SPORTS LIGHTING – FY 2015

OBJECTIVE

Fayette County, Georgia seeks bids for design and installation of new field lights at the following locations, to be completed between December 1, 2014 and February 1, 2015:

McCurry Park Soccer Field #4 at 150 McDonough Road in Fayetteville, Georgia
McCurry Park Softball Field #6 at 150 McDonough Road in Fayetteville, Georgia

SCOPE OF SERVICES

The primary goals of this sports lighting project are:

1. **Life Cycle Cost:** The preferred lighting system shall be energy efficient and cost effective to operate. All maintenance cost shall be included in the offered warranty, as described elsewhere in this document. The field(s) shall be proactively monitored to detect fixture outages over a 25 year life cycle. Lights will be controllable via remote on/off controls.
2. **Environmental Light Control:** Lighting must not negatively impact the community, players or spectators with excessive spill light or glare.
3. **Guaranteed Constant Light Levels:** The lighting system is to be designed so that constant light levels are guaranteed for a period of 25 years, for the safety of players and enjoyment of spectators.

A. WORK & PRODUCT REQUIRMENTS:

- The successful contractor shall supply the Musco Green Lighting System Equipment.
- All lighting fixtures, conduit, wiring, concrete bases, and wooden poles are to be removed from the site and disposed of by the contractor. Light pole and fixtures on Soccer fields with adjacent field lights attached shall remain. Any light poles taken down at McCurry Soccer fields shall be moved to a spot in the park which will be designated by the County.
- The contractor shall provide and install equipment necessary to provide a complete operational sports lighting facility that is energy efficient and cost effective to operate, does not negatively impact the community with excessive spill light or glare and provides for constant or maintained light levels. Items to be provided and installed by the contractor include, but shall not be strictly limited to the following:
 1. Sports lighting poles, fixtures, associated wiring and foundations.
 2. Electrical wire in conduit shall be THHN or THWN.
 3. Electrical conduit shall be Schedule 40 PVC
 4. New 277/480V, 3 Phase, 4W electrical distribution panel board.
 5. All labor and materials necessary to install NEW contactors and controls.
 6. All NEW wiring to each pole location.

7. All labor and materials necessary for the demolition and removal of the existing lighting system on each field.
8. All labor and materials necessary for the installation of the new poles and foundations.
9. All labor and materials necessary to assemble new poles.
10. All labor and materials necessary to aim poles/lighting.
11. All labor and materials necessary to install lamps and reflectors on pole top assembly.

B. LIGHTING PERFORMANCE :

- Lighting shall comply with all standards set forth by Amateur Softball Association, Georgia State Soccer and the Georgia High School Association unless contradictory to the standards set forth in bid.
- Lamps shall be 1500 watt, metal halide and shall meet ANSI designation M48PC-1500 BU and be Philips MH1500BU, MH1500MZ or an approved equal.
- Due to the nature of high output lamps experiencing excessive lumen depreciation and undesirable color shift over its usable life, lamps with a published lumen output of more than 155,000 lumens will not be permissible.
- Musco Sports Lighting shall supply computer generated point-by-point light scan documents based on a maximum of 155,000 lumens for all fields.
- A tilt factor of 1.0 shall not be acceptable for any type of lamp unless the lamp has been rated by the manufacturer in its intended operating position. However, the lumen output listed above shall remain the maximum allowable value used for lighting calculations.
- Light Loss Factors - The specified light levels shall be derived by applying Light Loss Factors to the Initial and Maintained lighting designs per the current edition of the IESNA RP-6-01 Lighting Handbook Reference and Application.
- Light Level Requirements: Contractor shall obtain from Musco and provide computer models guaranteeing constant light levels on the field over 25 years. Playing surfaces shall not fall below the average maintained light level and uniformity as specified in the chart below. If an automatic time power adjustment system cannot be provided, a maximum Recoverable Light Loss Factor of .69 shall be applied to the initial light level design to achieve the following maintained light levels. Lighting calculations shall be developed and field measurements taken on the grid spacing with the minimum number of grid points specified below. An automatic timed power adjustment system shall use a lumen maintenance control strategy as described in the IESNA Lighting Handbook.

Area of Lighting	Average Maintained Light Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
McCurry Park Soccer Field #4	30 footcandles	2.5:1.0	84	30'x30'
McCurry Park Softball Field #6 Infield	50 footcandles	2.0:1.0	25	20'x20'
McCurry Park Softball Field #6 Outfield	30 footcandles	2.5:1.0	160	20'x20'

- Glare Control - The installed lighting system must provide good light control in order to be environmentally responsible, provide good playability, and ensure the facility is aesthetically pleasing to the community.

Fixtures must have an external visor to reduce glare as well as spill light. Horizontal optic fixtures are not allowed. High output lamps (over 155,000 lumens) are not allowed.

- Photometric reports from an independent or certified testing laboratory must be provided to demonstrate the capability of achieving the specified performance. Reports shall be certified by a qualified independent testing laboratory with a minimum of five years' experience or by a manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products. ITL reports will remain confidential and be returned to the manufacturer after the bid is awarded.
- The luminaries shall be installed to operate, such that the luminous intensity from any individual fixture does not exceed 12,000 candelas at an angle of 85 degrees above nadir. This candela limit shall not consider the fixture's tilt factor. Musco Sports Lighting /contractor shall be responsible to prove conformance to specified lighting criteria, through submittal of complete Photometric Reports from an independent testing laboratory, for each sports lighting fixture type offered.
- Spill Light Control: Average horizontal foot candles at a distance of 150 feet from the perimeter of the field shall not exceed 0.20. Foot candle readings shall be taken at 30' intervals along the specified line. Measured average illumination level shall allow a 10% variance of predicted mean in accordance with IESNA RP-6-01 and be measured at the first 100 hours of operation.

- Mounting heights will vary per manufacturer in order to comply with specifications. Musco Sports Lighting /contractor shall submit mounting heights for each pole.
- Each item listed below shall be provided in the form of clear and concise statements and/or plans and drawings which can be easily read and clearly interpreted. Each item shall also be clearly numbered to correspond with the following list. All items shall be assembled in the order indicated and secured or bound in a neat and orderly fashion for easy use and reference.
 1. Computer generated scans showing the initial and maintained light levels, based on the criteria of these specifications.
 2. Full photometric reports for each NEMA type fixture used in design. Iso-candela curves will not be accepted.
 3. Aiming diagram or report, showing vertical aiming angles of each fixture, for field layout.
 4. Generic pole drawing detail including foundation detail and electrical transition.
 5. Lighting fixture cut-sheet depicting remote ballast and spill and glare control.
- Due to glare control concerns, a minimum mounting height shall be used to ensure sufficient vertical aiming angles which reduce glare and help ensure the illumination on the playing field is balanced, providing adequate modeling of the ball for optimal playability. Due to the type and level of play expected on the field mounting heights shall be a minimum height as shown below :

Area of Lighting	Pole ID's	Minimum Mounting Height
McCurry Park Soccer Field #4	Field #4F1, #4F2, #4F3, #4F4	70'
McCurry Park Softball Field #6 Infield	Field #6A1, #6A2	60'
McCurry Park Softball Field #6 Outfield	Field #6B1, #6B2, #6C1, #6C2	60'

- Musco Sports Lighting fixture shall not exceed the candlepower at the specified degrees above the center of the beam in the vertical plane as specified in the following table. For comparison purposed the same NEMA classification will be evaluated; this NEMA classification may or may not be used.

FIELD	NEMA Classification of Vertical Beam	Candela	Degrees Above the Center of the Beam in the Vertical Plane
McCurry Park Soccer Field #4	4	10,000	15 degrees
McCurry Park Softball Field #6	4	34,000	15 degrees

If Musco Sports Lighting photometric report indicates that they cannot meet the criteria, they may increase mounting heights (see below) to maintain the same impact for playability, spectator comfort and impact on the adjoining properties.

This mounting height increase will be calculated by referencing the fixture photometric report and determining the angle above vertical that the fixture achieves a candela reading less than or equal to the above specified candela. Pole heights will be increased in the following increments to achieve a candela reading as specified:

Field	Adjusted Pole Heights
McCurry Park Soccer Field #4	3.24 ft/degree (84' minimum mounting height)
McCurry Park Softball Field #6	3.56 ft/degree (86' minimum mounting height)

*Calculations above assume the specified candela is achieved at 19.5 degrees above the center of the beam in the vertical plane.

- To avoid uncontrolled glare and spill light and to improve field playability, Musco Sports Lighting shall not mount the lamp inside the fixture where the arc tube is exposed. The base of the lamp must connect to the inside rear of the fixture to eliminate uncontrolled glare from the arc tube.

C. STRUCTURAL PERFORMANCE – GALVANIZED STEEL POLES OR CONCRETE POLES:

Bidders may use galvanized steel poles or concrete poles. Requirements for either type are as follows:

Galvanized Steel Poles:

- General Conditions: The lighting structure system shall consist of a galvanized steel pole and galvanized steel cross arm assembly, wire harness, and electrical component enclosure. The pole shall be supported by a pre-stressed concrete base section embedded in concrete backfill or concrete foundation; or supported by an anchor bolt and base plate assembly with a concrete foundation.
- The pole shaft shall be high strength, low alloy, tapered tubular steel that is equal to current ASTM-A595 standards, and along with all the steel components of the pole, shall be hot-dipped galvanized to current ASTM A-123 standards. All exposed hardware and fasteners shall be stainless steel of at least 18-8 grade, passivity and polymer coated to prevent possible galvanic corrosion to adjoining metals. All exposed aluminum shall be powder coated with high performance polyester. All exterior reflective inserts shall be anodized, coated with a clear, high gloss, durable fluorocarbon, and protected from direct environmental exposure to prevent reflective degradation or corrosion. All wiring shall be enclosed within the cross arms, pole, or electrical components enclosure.

- The lighting system shall be designed such that the pole and other support structures, brackets, arms, bases, anchorages and foundations will withstand winds of 90 mph based upon the current Edition of the International Building Code, Exposure Type C standards utilizing the 50 year mean recurrent Isotach wind map data and an importance factor of 1.0 Luminaries, visor and cross arm shall withstand 150 MPH winds and maintain luminaries aiming alignment.
- The stress analysis and safety factor of the poles shall conform to AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals most recent edition.
- Poles will be installed no closer than 6' off the fence, around spectator seating and warm up areas. The pole design and installation criteria shall be submitted to Fayette County by the successful contractor prior to installation and shall be sealed by a registered Professional Engineer in the State of Georgia.
- Foundation designs shall be based on standard soil parameters that meet the requirements of the International Building Code/Universal Building Code) Class 5 soil. Signed and Sealed Foundation Drawings must be specific to this project and be **submitted once bid has been awarded**. The foundation drawings must list the moment, shear (horizontal) force, and axial (vertical) force at ground level for each pole.
- Foundations of poles shall be constructed of not less than 9500 PSI pre-stressed centrifugally spun concrete, such that the steel reinforcement within the concrete shall be protected from slippage and exposure from oxidation through voids in the concrete or exposure of the steel through porous concrete material.
- Alternate Concrete Foundation: The foundation may be concrete anchor bolt type. All concrete foundations should be designed to keep the steel pole and any exposed steel portion of the foundation a minimum of 18" above grade level.
- In order to provide maximum guarantee against shifting, foundations of poles shall be back filled with concrete. Gravel back-fill (or crusher run) will not be accepted.
- To alleviate concerns of corrosion at or near grade level and to curtail the need for corrosion inspections and maintenance in the same area, direct buried steel poles will not be permissible.

Concrete Poles:

- Concrete poles as manufactured by Newmark, in Claxton, Georgia or equivalent pole by another manufacturer will be considered.
- The structural design of the poles shall be demonstrated to be based on the commercial standard for pole stress allowances.
- The lighting system shall be designed such that the pole and the foundation will withstand winds of 90 mph based upon the current Edition of the International Building Code, Exposure Type C standards utilizing the 50 year mean recurrent Isotach wind map data and an importance factor of 1.0 Luminaries, visor and cross arm shall withstand 150 MPH winds and maintain luminaries aiming alignment.

- The stress analysis and safety factor of the poles shall conform to AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals most recent edition.
- The pole design shall be of sufficient strength to support the effective projected area (EPA) of the pole and all of the attached devices including, as applicable, light fixtures, cross arms, mounting brackets, ballast boxes, and any other devices which are to be attached to the pole.
- In order to provide maximum guarantee against shifting, foundations of poles shall be back filled with concrete. Gravel back-fill (or crusher run) will not be accepted.
- Steel components of the pole shall be hot dip galvanized to meet current ASTM A-123 standards or stainless steel. All exposed hardware and fasteners shall be stainless steel of at least 18-8 grade, passivity and polymer coated to prevent possible galvanic corrosion to adjoining metals. All exposed aluminum shall be powder coated with high performance polyester. All exterior reflective inserts shall be anodized, coated with a clear, high gloss, durable fluorocarbon, and protected from direct environmental exposure to prevent reflective degradation or corrosion. All wiring shall be enclosed within the cross arms, pole, or electrical components enclosure.
- Poles will be installed no closer than 6' off the fence, around spectator seating and warm up areas. The pole design and installation criteria shall be submitted to Fayette County by the successful contractor prior to installation and shall be sealed by a registered Professional Engineer in the State of Georgia
- Foundation designs shall be based on standard soil parameters that meet the requirements of the International Building Code/Universal Building Code) Class 5 soil. Signed and Sealed Foundation Drawings shall be specific to this project and be **submitted once bid has been awarded**. The foundation drawings shall list the moment, shear (horizontal) force, and axial (vertical) force at ground level for each pole.

D. REMOTE BALLAST ELECTRICAL PERFORMANCE:

- To allow convenient access to major electrical components and to remove excess weight from the cross arms, the electrical component enclosure (ECE), shall house the ballasts, capacitors, fuses for each luminaries and lock out/tag out disconnect switch or thermal magnetic breaker for each pole structure. The ECE shall be located on the pole approximately 10 feet above grade and should be lockable.
- Electrical component enclosures shall be hot-dipped galvanized to ASTM A-123 standards, stainless steel or heavy gauge aluminum. Due to corrosion concerns with exposed steel, painted steel enclosures or steel enclosures galvanized prior to fabrication will not be accepted.
- To protect from deterioration from exposure to the elements, all wiring shall be enclosed inside the structural components or totally within rigid or flexible conduit.

- A spiral wound wire harness with plug-in connectors on both ends shall be supplied to provide electrical connection between the electrical enclosure at the bottom of the pole and the fixtures at the top of the pole. The wire harness shall be Mylar wrapped and encased in an abrasion resistant sleeve. The harness shall be supported at the top of the pole by a wire mesh strain relief grip that is mechanically attached to the pole by an enclosed snap hook. If the pole is 80' or taller, another wire mesh grip shall be attached in the same manner approximately half way down the pole.
- All wire harness conductors shall be color coded and labeled for ease of identification. Conductors shall be sequenced, consistent with the pattern for the wiring connection identifier provided by the manufacturer. In addition, all conductors and plug-ins shall be factory tested for resistance under load, continuity, schematic sequence, and insulation integrity.
- Controls and Monitoring Cabinet to provide on-off control and monitoring of the lighting system shall be constructed of NEMA Type 4 aluminum. Communication method shall be provided by manufacturer/contractor.
- Remote Monitoring System: System shall monitor lighting performance and notify manufacturer/contractor if individual luminary's outage is detected so that appropriate maintenance can be scheduled. Musco Sports Lighting /contractor shall notify Fayette County of outages within 24 hours, or the next business day. The controller shall determine switch position (manual or auto) and contactor status (open or closed).
- Remote Lighting Control System: System shall include lighting contactors. System shall allow Fayette County and users with a security code to schedule on/off system operation via computer or telephone and up to ten years in advance. Fayette County shall be able to assign various security levels to schedulers by function and/or fields. This function shall allow a range of privileges such as full scheduling capabilities to only having permission to turn lights on by telephone. Musco Sports Lighting /contractor shall provide and maintain a two-way communication link. The system should have trained staff available 24/7 to provide scheduling support and assist with reporting needs. A separate lighting contactor cabinet and control and monitoring system shall be provided for each electrical service.
- On site equipment shall include manual off-on-auto switches to allow for maintenance and shall accept and store schedules. The controller shall accept and store schedules, be protected against power outages/memory loss and shall reboot once power is regained and execute any commands that would have occurred during outage.
- The contractor shall provide a computer based database of actual field usage and provide reports by facility and user group.
- The designer shall verify that voltage drop to any structure does not exceed 3% of normal voltage.
- All lighting equipment shall be UL listed as individual components.

- All poles, fixtures and distribution panels shall be grounded according to National Electrical Code Recommendations.
- All structures shall be equipped with lightning protection meeting standards established by NFPA 780. Each structure shall have a ground rod of not less than 5/8" in diameter and not less than 10' in length. An 8' ground rod is permissible, provided that the ground rod extends vertically into the ground a minimum of 10'. The ground rods shall be connected to the structure by a copper main down conductor with a minimum size of #2 for poles with less than 75' mounting height and 2/0 for poles with more than 75' mounting height.
- The lighting circuits shall be designed to provide within +/- 3% of the nominal voltage to the line side of the disconnect switch or breaker in the remote electrical enclosure.
- Each pole shall have an individual circuit run to it from the main service entrance panel. Common poles shall have individual circuits to each group of lights designated to different playing areas.
- All system components shall be UL Listed for appropriate application.

E. ELECTRICAL DESIGN:

- All electrical work shall conform to the current edition of the National Electric Code.
- Equipment and material furnished under this section shall be new, unused, and shall be manufactured to the following standards:
 - I.E.E.E. – Institute of Electrical & Electronic Engineers
 - A.N.S.I. – American National Standards Institute
 - U.L. – Underwriters Laboratories, Inc.
 - I.C.E.A. – Insulated Conductor Engineers Association
- The electrical service shall be rated at least 12% of calculated KA load. Panel boards shall be rated for service entrance, NEMA 3R and each shall include a main breaker. All branch breakers shall be bolt types.
- Electrical service shall include heavy-duty lighting contactors, switches and timers.
- The contractor will coordinate remote on/off switch location with the County. The successful contractor shall provide written specs on remote on/off control switches and timers to be installed.
- The pole and the luminaries shall be designed, such that all wiring remains underground before entering the base of the pole and that no wiring shall be exposed to sun or weather as it transitions through the pole and to the ballast and on to each lamp.
- Each pole location shall have a dedicated circuit and contactor.

- No trench line or branch circuit shall cross the playing area. Branch circuits shall be buried **in conduit** with all copper wires at depths provided by NEC or by local code. Acceptable copper wire is THHN or THWN.
- No bend of any conductor shall form an included angle of less than 90 degrees nor shall it have a radius bend of less than 8".
- All electrical equipment (panels, breakers, contactors, enclosures, conduit, wiring, fittings, etc...) **shall be new**. Do not use any existing wiring.
- All conduits above grade shall be rigid galvanized steel. Underground conduits shall be schedule 40 PVC. When an underground conduit is stuffed up, provide PVC to steel adaptor. The exposed extensions of the conduit shall be rigid galvanized steel. Electrical metallic tubing shall not be used at any location. Conduits shall be U.L. listed.
- Electrical switch gear shall be housed on a frame constructed from 3" galvanized angle iron with hardware that is either stainless steel or hot dipped galvanized.
- The electrical contractor shall coordinate the transformer and switch gear locations with the local Power Company and the County before any equipment is installed.
- The electrical contractor shall be a licensed contractor and shall be responsible for providing electrical calculations and fault current calculations including maximum available fault current to be listed on service, feeder, and branch equipment.
- The electrical contractor shall provide a detailed panel schedule and list calculated loads.
- The electrical contractor shall be responsible for labeling all equipment to code and provide manufacturers installation instructions for all equipment.
- The contractor shall obtain and pay for all permits and inspections required by the building and safety code and ordinances and the rules and regulations of any legal body having jurisdiction.

F. WARRANTY AND ACCOUNTABILITY:

- Safety: A UL listing for all electrical components from its connection to the feeder conductors, to its completion at the lamp socket including all connections. This listing shall be based upon UL testing and evaluation of the compatibility of the enclosures and the components for use in combination in this application in addition to the individual components being UL Listed or recognized.
- Sports Lighting Structure shall meet National Electrical Code.

- Performance Warranty: The Contractor shall provide a written performance warranty from Musco that all light performance criteria shall conform to the submitted photometric data as required by these specifications. Any field deviation corrections shall be the responsibility of the successful contractor including additional field aiming costs, installation of additional luminaries, and/or other corrective measures. In addition, the contractor shall warranty the installations for a minimum of one year.
- Musco Sports Lighting warranty, maintenance and monitoring program shall be provided with your bid. The warranty shall include guaranteed light levels, system energy consumption, spill light control and structural integrity. The warranty shall also include all preventative and spot maintenance, including parts and labor for 25 years from the date the system is powered up and turned over to Fayette County. Individual lamp outages shall be repaired when the usage of any field is materially impacted. Musco Sports Lighting/Contractor shall provide group lamp replacement warranty information with your bid. Musco Sports Lighting/Contractor shall provide lighting performance monitoring warranty information with your bid.
- Inspection and verification: The contractors will grid the field in accordance with the project approved computer model submittals. A Fayette County representative will be in attendance when the contractor field measures and documents the on-field illumination levels and calibrate uniformity ratios in accordance with this specification. Off-site spill and glare light levels will be measured in accordance with Musco Sports Lighting approved extended computer models submittals. All light level measurements shall meet the approved initial light level computer model submittals. If in the opinion of Fayette County the actual performance levels including foot-candles, uniformity ratios and maximum kilowatt consumptions are not in conformance with the requirements of the performance specifications and submitted information, the contractor shall be liable to any or all of the following:
 1. The contractor shall at his expense provide and install any necessary additional fixtures to meet the minimum lighting standards. The contractor shall also either replace the existing poles to meet any new wind load (EPA) requirements caused by the additional light fixtures being installed or verify by certification by a licensed structural engineer that the existing poles will withstand the additional wind load.
 2. **The contractor shall minimize Fayette County's additional long term fixture maintenance by providing maintenance for the additional fixtures at no added cost for the remaining portion of the 25-year warranty period.**
 3. The contractor shall remove the entire unacceptable lighting system and install a new lighting system to meet the specifications.
- All testing will be done with the entire facility illuminated. The lighting sensing surface of the light meter is to be held 36 inches above the playing surface with the sensing surface horizontal to the ground so that it detects light coming downward to the sensing surface from all directions around the ball field.
- **A Fayette County representative shall be present during testing.**
- The light meter utilized for the verification of the lighting performance shall be provided by the Fayette County representative and/or Musco Sports Lighting. The meter used for verification shall be of high accuracy and certified within the previous

12 months. Acceptable light meters are those manufactured by Cooke, Gossen and Minolta or approved equal.

- For final approval of the project, the contractor shall provide a final report from the test results that shall provide the following items:
 - (1) Identification of numbers and location of the test stations that shall agree with the description provided in specifications.
 - (2) Actual horizontal foot-candle readings taken at each test station.
 - (3) Actual maximum foot-candle readings taken at each spill/glare test station.
 - (4) Number of hours of operation and number of system starts.
- Final testing shall be done in the first 100 hours of operation. Although there may be differences from expected results to actual results on the field, there will not be an allowance of +/- 10% of predicted mean in accordance with IESNA RP-6-01. Actual field reading must meet or exceed the initial values given in the specification.
- Testing shall also be done a maximum of every 5 years after installation or at the request of the Parks and Recreation Director to verify light levels are being maintained.

G. DOCUMENTATION & OTHER SUBMITTAL REQUIREMENTS:

- Computer generated scans showing the initial and maintained light levels.
- Full photometric reports for each NEMA type fixture used in design. Iso-candela curves will not be accepted.
- Light level, uniformity, and fixture alignment guarantee from Musco Sports Lighting, including the manufacturer's remedy to deficiencies. Guarantees provided by a Musco Sports Lighting's representative will not be accepted in lieu of the manufacturer's guarantee.
- Written remote ballast and spill and glare control from Musco Sports Lighting for the lighting system.
- Aiming diagram or report showing vertical aiming angles of each fixture for the field layout.
- Written specifications on remote control switches and timers to be installed.
- Drawings that indicate dimensioned pole locations, pole mounting heights, and the number of luminaries per pole.
- Generic pole detail drawing detail including foundation detail and electrical transition.
- A certified engineer, independent of manufacturer, shall verify and stamp wind load test of luminaries' assembly to meet or exceed structural strength. Please note, EPA test does not constitute misalignment verification.
- Written warranty from Musco Sports Lighting covering entire structure.
- Written warranty from contractor for contractor's work.
- Written maintenance and monitoring program covering the entire structure.
- Written energy consumption from Musco Sports Lighting for the lighting system.
- Written 25-Year Life Cycle Cost from the Musco Sports Lighting for the lighting system. Calculations shall be equal to # of fixtures x .07 kWh rate x 350 annual hours x 25 years. Calculations should include such things as costs for energy consumption, re-lamping, maintenance, and energy controls.

- Written remote on/off control operation information for the lighting system.
- The pole supplier shall provide sufficient data and calculations to show that the specified criteria will be met. The complete design of the pole and recommended foundation **shall be submitted once bid has been awarded** and must be sealed by a Structural Engineer, registered in the state of Georgia, independent of the pole manufacturer.
- The successful contractor shall submit a copy of shop drawings for circuit breakers, lighting power panel, lighting control panel, surge suppressor and conduit and cables **once the bid has been awarded**. Fabrication shall commence only after approval of the shop drawings.
- **Upon completion of the project**, the successful contractor will submit a drawing indicating where all underground lines are buried and how deep.
- **Upon completion of the project**, the successful contractor shall provide a final report from the test results that shall provide the following items:
 - Identification of numbers and location of the test stations that shall agree with the description provided in specs.
 - Actual horizontal foot-candle readings taken at each test station.
 - Actual maximum foot-candle readings taken at each spill/glare test station.
 - Number of hours of operation and number of system starts.

H. OTHER REQUIREMENTS:

- Electrical service to the fields will be 277/480V, 3 Phase transformers. If old transformers power adjacent fields or buildings, it should remain.
- All existing underground wire will remain underground. New wiring shall be buried underground.
- The successful contractor shall repair all damage to walking trails, landscaping, fields, irrigation, scoreboard wires, phone lines, power lines or any park features during the installation process. All existing asphalt torn up by the successful contractor should be repaired with asphalt or concrete. All cuts should be direct and smooth cuts. All grass disturbed areas on the outside of the playing field should be smoothed to existing ground surface and must be seeded with Winter Blend and then straw placed over seed. Seed and straw must meet county requirements. Inside playing field shall be smoothed to existing ground surface and installed with Tiftway 419 Sod.
- The successful contractor shall coordinate exact location with Fayette County prior to installation however all panel boards shall be located beside/adjacent to the transformers for each field.
- The successful contractor shall coordinate the location of remote control lighting switches with Fayette County prior to installation.
- The successful contractor shall be responsible for keeping job site clean and orderly. All excess material shall be removed from site and disposed of by the successful contractor after completion. Barricades shall be used in an effort to keep the general public from entering the work area.

- The successful contractor will locate all utilities.
- The successful contractor shall obtain all necessary permits to perform the work and arrange for inspection by authorities having jurisdiction. The successful contractor shall pay all necessary fees.
- The successful contractor shall submit a drawing indicating where all underground lines are buried and how deep.
- The successful contractor shall coordinate all work with county before any installation begins.
- Work shall be coordinated with and inspected by Fayette County. Each stage of the installation process must be inspected by Fayette County prior to proceeding to the next stage of installation. The contractor shall provide a list of the various installation stages to Fayette County prior to any installation.
- It shall be the responsibility of the contractor to measure fields to confirm actual sizes. All designs submitted must include pole coordinates.
- There will be no security lights or speakers mounted to the poles.

BID REQUIREMENTS

RESPONSIVE BID

In order to be considered a responsive bid, your bid must include the following:

1. **Required Information and Forms:** Include Company Information on form provided, Pricing Sheet, List of exceptions (if any), Work Authorization Document (Contractor Affidavit), Bid Bond, Insurance Certificate and Letter Assuring Performance & Payment Bond.

RESPONSIBLE BIDDER

To help the county determine that each bid is from a responsible bidder, the following must be provided:

1. **Relevant Experience:** Provide a representative list of projects that your company has done that are similar to the work described herein. Include at least two projects within the State of Georgia that have been completed within the last year, as well as two within the State of Georgia that were completed at least five years ago. For each project, include a brief description of the work performed and the date the job was completed.
2. **References:** Provide a minimum of three references on the form included in the Request for Bid.

3. **Financial Stability:** Provide your most recent audited financial statement as reported by an independent auditing firm. Fayette County reserves the right to require additionally that the bidder provide an annual operating statement, income tax form, or other reasonably comprehensive evidence of financial condition, if needed. Financial data provided in response to this invitation for bids will be held confidential if marked "confidential" by the bidder.

EXCEPTIONS TO SPECIFICATIONS

[illegible]

COMPANY NAME _____

PRICING SHEET

DESCRIPTION	TOTAL BID AMOUNT
McCurry Park Soccer Field #4	\$
McCurry Park Softball Field #6	\$
Discount if awarded both Fields	\$
Net Discounted Amount for both Fields	\$

NOTES:

1. All applicable charges shall be included in your total bid amount, including but not limited to materials, equipment, installation, labor, and any other amounts. No additional charges will be allowed after the bid opening.
2. All warranty, maintenance, and light-verification testing shall be included in your total bid amount.
3. Fayette County may make award by individual field, or for both fields, unless the responder qualifies his bid with specific limitations. Depending on the availability of funds, both fields may not be awarded.

STATE PAYMENT TERMS _____

IF SUCCESSFUL; WILL YOU BE ABLE TO COMMENCE WORK ON MONDAY,
DECEMBER 1, 2014? _____. IF NOT, PROVIDE COMMENCEMENT
DATE _____.

STATE LENGTH OF TIME TO COMPLETE PROJECT _____ DAYS
(JOB COMPLETION TIME WILL BE A FACTOR IN THE AWARD)

COMPANY'S NAME: _____

BIDDER'S QUALIFICATION SHEET – BID #910

Please list three (3) references of current or very recent customers who can verify the quality of service your company provides. Projects of similar size and scope are preferred.

REFERENCE ONE

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Email Address _____

Scope of Work & Contract Period _____

REFERENCE TWO

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Email Address _____

Scope of Work & Contract Period _____

REFERENCE THREE

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Email Address _____

Scope of Work & Contract Period _____

COMPANY INFORMATION

Company_____

Physical Address of Business _____

Mailing Address (If Different)_____

Authorized Representative _____
(Print or Type)

Authorized Representative _____
(Signature)

Title_____

Email Address:_____

Telephone Number:()_____

Cellular Number:()_____

Fax Number:()_____